

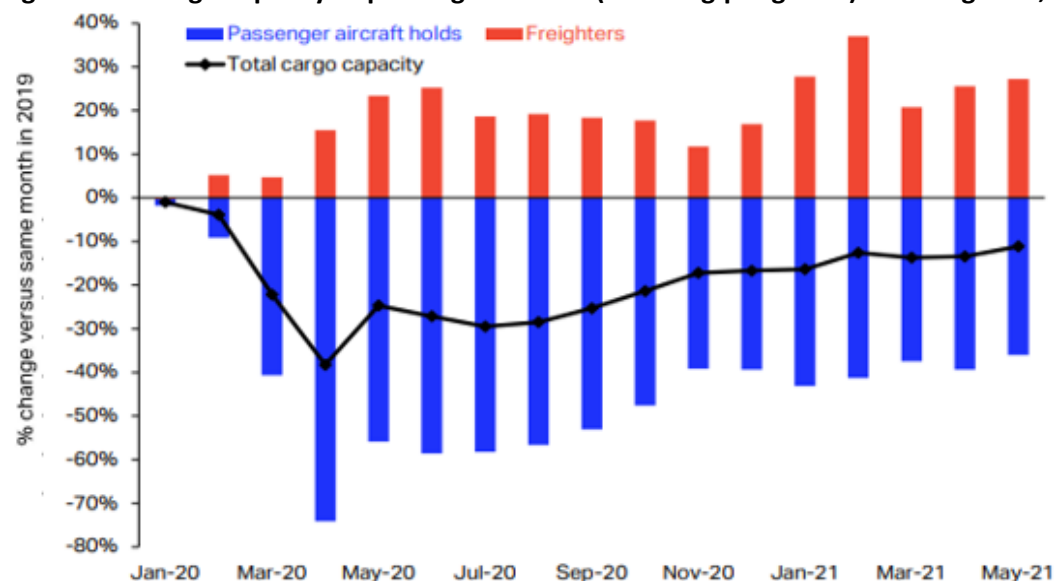
Preighters: How Airlines Pivoted Operations in the Face of a Global Pandemic

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This EBOT describes how the airline industry modified typical passenger aircraft into “preighters” (passenger-freighters) to be able to transport cargo in response to decreasing passenger demand and flight restrictions brought on by the COVID-19 global pandemic. While airlines were able to transport cargo on and profit from otherwise idle passenger aircraft, total air freight capacity decreased in 2020 because preighters did not entirely replace the freight capacity in the cargo holds of typical passenger aircraft. Dedicated freighter aircraft increased capacity and share of total air freight capacity in 2020 as airlines grounded much of their passenger fleets. Future demand for air freight capacity is estimated to increase in line with global pandemic recovery and will largely be filled by dedicated freight aircraft.

Preighters is a term coined by Lufthansa chief executive Carsten Spohr to describe aircraft that are converted from passenger purposes to cargo purposes. It is a phenomenon that has uniquely arisen due to cargo bottlenecks caused by a lengthy, global pandemic. Global COVID-19 restrictions that cut passenger travel and decreased demand for passenger flights have led to air freight no longer being regularly transported in the cargo holds of passenger flights, resulting in a capacity shortage for air freight (figure 1). Many airlines, including Air Canada, Delta Air Lines, Emirates, Lufthansa, Qantas, and United Airlines, modified existing passenger aircraft into preighters to pivot from decreased demand in passenger flights to increased demand for air freight caused by bottlenecks in oceangoing cargo and capacity shortages in traditional air freight.

Figure 1 Air cargo capacity in passenger aircraft (including preighters) and freighters, relative to 2019



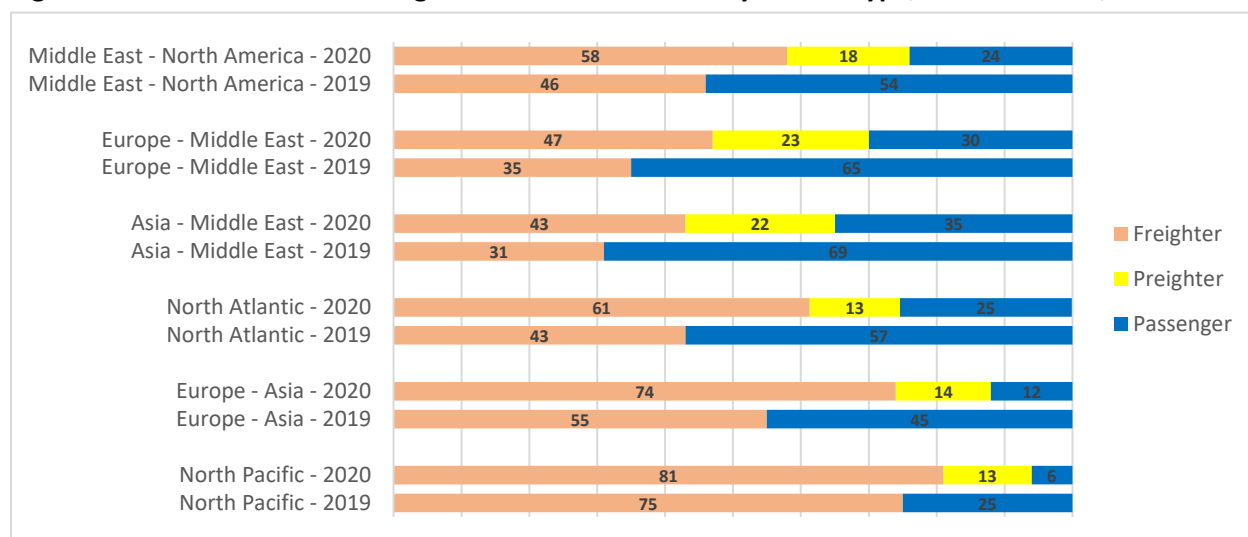
Source: IATA economics using data from IATA monthly statistics

Airlines embraced cargo operations in the face of greatly reduced passenger revenues as the pandemic unfolded during 2020–21. International Air Transport Association (IATA) estimated airlines were operating 2,500 preighters by September 2020 and revenues from cargo operations increased in 2020, averaging one third of the global airlines industry total revenues. Despite the rise of preighters, dedicated freighter aircraft increased its share of air freight capacity. The impact of new preighter air freight capacity varied between markets, but in general, dedicated freighters increased their share of capacity between 2019

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and 2020 because freighter capacity could not replace the capacity lost by fewer passenger flight cargo holds (figure 2). In April 2020, passenger freight capacity was down 75 percent year-over-year.

Figure 2 Percent of scheduled cargo metric ton-kilometers by aircraft type, select markets, 2019-2020



Source: IATA economics using data from IATA monthly statistics

Airlines have not used a single method for pivoting to cargo operations during the pandemic and their strategies have varied. Some airlines removed seating and other passenger infrastructure within the aircraft to maximize the amount of cargo capacity while other airlines simply stored cargo in and around the seats. Other airlines recommissioned larger passenger aircraft strictly for cargo purposes. As passenger airlines have pivoted to cargo operations, regulators such as the European Union Aviation Safety Agency (EASA) have released restrictions and guidelines regarding preighters. Preighters are well suited to transport certain goods, such as vaccines that require timely travel and cold conditions, as well as other pandemic-related goods; however, certain cargo was restricted from transport on preighters due to safety concerns. The fire suppression system in passenger aircraft is different than that in dedicated cargo aircraft and is not suited to handle certain riskier goods. Additionally, EASA is considering limiting the total annual flight hours for preighters as a blanket safety regulation.

Preighters, while beneficial to airlines in the short run, are not likely to remain an important factor in air freight concerns in a post-pandemic world. In 2021, several airlines began reconverting preighters back to passenger aircraft to meet rising demand for air travel. Dedicated freight aircraft are expected to continue to transport the majority of air freight and by 2039, there will be an estimated 3,260 dedicated freighter aircraft, a 60 percent increase to the freighter fleet in 2020. Freight aircraft have advantages over preighters and passenger cargo holds such as: targeted cargo routes as opposed to passenger routes, palletized and less-restricted capacity, faster shipping times, safety benefits, and longer payload-ranges.

Sources: Boeing, [World Air Cargo Forecast 2020-2039](#); Hardiman, Jake, [EASA May Limit Use of Preighters Over Fire Risk Worries](#); Hyde, Dominic, [Vaccine Passage and Repurposed 'Preighters': What's Trending in Air Cargo](#); IATA, [Air Cargo Market Analysis - May 2021](#); IATA, [Air Cargo Market Analysis - September 2020](#); IATA, [IATA Economics' Chart of the Week - April 1, 2021](#); LaRocca, Gregory, [Rising Maritime Freight Shipping Costs Impacted by Covid-19](#); Pearce, Brian, [COVID-19 Air Cargo Market Outlook - May 11, 2021](#); Smith, Josh, [The Rise of the 'Preighter'](#); Thorn, Adam, ['Preighters' is the New Name for 2020's Aviation Phenomenon](#); Thuermer, Karen, [No Swift Changes for Air Cargo](#); Unnikrishnan, Madhu, [Ethiopian Restores Jets From Cargo Use to Serve Rising Passenger Demand](#).

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